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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,973	07/25/2003	Ronald D. Blum	63049.001003	3786
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J. MICHAEL MARTINEZ DE ANDINO ESQ. HUNTON & WILLIAMS RIVERFRONT PLAZA, EAST TOWER 951 EAST BYRD ST. RICHMOND, VA 23219-4074			EXAMINER SCHWARTZ, JORDAN MARC	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/626,973

**Applicant(s)**

BLUM ET AL.

**Examiner**

Jordan M. Schwartz

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12,59,71-77,79-85,89,90 and 96-98 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12,59,71-77,79-85,89,90 and 96-98 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/18/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 1, 71, and 89 (and their respective dependent claims) are objected to for the following reason. Since the intended meaning could be determined from the specification and the Figures, 112 rejections were not made but instead these lack of clarity issues are being raised in the following claim objections.

With reference to claims 1, 71 and 89, that part of the claim stating "other than ...astigmatism" creates a lack of clarity because applicant has stated that "irregular astigmatism", which is a form of astigmatism, is considered "non-conventional refractive error". Based upon what is set forth in the specification, the assumed meaning of these claims is "wherein the non-conventional refractive error is a refractive error other than myopia, hyperopia, presbyopia or astigmatism but including irregular astigmatism" and it is suggested that applicant amend the claims to include this or similar language to provide the required clarity.

Claim 2 is objected to because of the following informality: in line 2, "one myopia" should be corrected to "one of myopia" to correct an apparent inadvertent error. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, 10-12, 59, 71-77, 79, 81-85, 89-90, and 96-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Profile, Indiana Journal of Optometry, Vol 2, No. 1, pages 5-10, herein referred to as "Profile".

Profile discloses the limitations therein including the following: a spectacle lens (page 6, second column to page 7, first column). Spectacle lenses will inherently comprise a front surface, a back surface, and a peripheral edge. "Profile" further discloses a vision correction area having a refractive error correction (page 8, second column, re the "sphero-cylindrical refractive error correction and the higher order aberrations correction); the refractive error correction based on a lens prescription determined by a wave front analysis of a wearer's eye (page 6, second paragraph to page 7, first paragraph, page 8 second column); and the vision correcting area correcting non-conventional refractive error as defined to provide at least a part of the wearer's vision correction (page 8, second column re "higher order aberrations").

Profile discloses as is set forth above but does not specifically disclose the peripheral edge capable of being modified to fit within an eyeglass frame. However, it is inherent that the peripheral edge would be capable of being modified to fit within an eyeglass frame, this being reasonably based upon "Profile" disclosing the lens for use in eyeglasses (Pages 6-8) and being based upon Figure 2 which discloses that the liquid crystal array does not extend to the periphery of the lens. Regardless, "Profile" teaches that the lens can be in the form of a "hybrid lens" being made from ordinary glass (page 8, second column). The examiner takes Judicial Notice that it is well known in the art of eyeglass lenses for glass lenses to have peripheral edges that are capable of being

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modified, such as by well known grinding techniques, for the purpose of having the lens properly fit within the eyeglass frame. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the peripheral edge of "Profile" capable of being modified to fit within an eyeglass frame since "Profile" teaches that the lens can be in the form of a "hybrid lens" being made from ordinary glass, and it is well known in the art of eyeglass lenses for glass lenses to have peripheral edges that are capable of being modified, such as by well known grinding techniques, for the purpose of having the lens properly fit within the eyeglass frame.

"Profile" further discloses that the vision correction area can correct for conventional refractive error (page 8, second column re "hybrid lens" and correcting "sphero-cylindrical refractive error" or "correcting presbyopia"); that the lens can correct for aberrations of the lens or ocular system (Page 8, second column); that the lens can have a material having a variable index of refraction and a modifiable index of refraction (pages 6-8 re the liquid crystal lenses). With respect to claim 6, "Profile" discloses the lens as an eyeglass lens but does not specifically disclose the back surface as concave. However, the examiner takes Judicial Notice that it is well known in the art of eyeglass lenses for the back surfaces to be either convex or concave depending upon the desired type of optical correction. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the back surface of the eyeglass lens of "Profile" as concave since it is well known in the art of eyeglass lenses for the back surfaces to be either convex or concave depending upon the

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desired type of optical correction. "Profile" further discloses the lens providing a prismatic power (page 7, first column); the correction of unconventional refractive error provided by localized changes in a refractive power of the lens (pages 6-7 re the liquid crystal lenses with an array of cells that are "individually addressed"); the lens correcting to better than 20/20 vision (page 8, second column). With respect to claim 12, "Profile" does not specifically disclose the lens correcting vision to better than 20/10. However, "Profile" teaches that the correction of high order aberrations "can increase visual acuity" and "perhaps beyond the typical limit of 20/15". Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lenses of "Profile" as correcting to better than 20/10 since "Profile" teaches that the correction of high order aberrations can increase visual acuity perhaps beyond the typical limit of 20/15 for the purpose of providing improved visual performance. "Profile" further discloses the non-conventional refractive error correction being different in different regions of the vision correcting area (pages 6-7 re the array of cells that can be "individually addressed"). With respect to claim 71, "Profile" discloses the first region utilizing a prescription determined in part from a wavefront analysis (page 8 second column); a first region correcting for both non-conventional and conventional refractive error (pages 6-8 re the liquid crystal portion as the first region correcting for non-conventional refractive error re "correcting for higher order aberrations" and correcting for conventional refractive error re "correcting for presbyopia"); a second region correcting for refractive error (page 8, second column re the glass portion of the "hybrid lens" as the second region and correcting for "sphero-cylindrical refractive error); the

first portion providing for the highest level of correction within the lens (page 8 re by correcting for high order aberrations it will inherently provide for the highest level within the vision correcting area); and a second region that provides a lesser level of correction than that of the first region (page 8, second column re the glass portion of the hybrid lens that provides for just sphero-cylindrical correction will provide for lesser correction than the first region which corrects for higher order aberrations). "Profile" further discloses the vision correction area correcting for one of distance, intermediate or near vision (pages 6-8 re correcting for presbyopia and providing sphero-cylindrical correction); and the lens as an electro-active lens (pages 6-8).

Claims 1-3, 7, 11, and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 92/01417.

WO 92/01417 discloses the limitations therein including the following: a spectacle lens (page 8, lines 30-35, page 33, lines 29-35). Spectacle lenses will inherently comprise a front surface, a back surface, and a peripheral edge. WO 92/01417 further discloses a vision correction area having a refractive error correction (page 7, line 3 to page 9, line 2, page 33, lines 29-35); the refractive error correction based on a lens prescription determined by a wave front analysis of a wearer's eye (page 7, line 3 to page 9, line 2, page 33, lines 29-35); and the vision correcting area correcting non-conventional refractive error as defined to provide at least a part of the wearer's vision correction (page 7, line 3 to page 9, line 2, page 10, lines 20-30, page 24, line 15 to page 25, line 30).

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WO 92/01417 discloses as is set forth above but does not specifically disclose the peripheral edge capable of being modified to fit within an eyeglass frame. However, the examiner takes Judicial Notice that it is well known in the art of eyeglass lenses for such lenses to be made from glass or plastic having peripheral edges that are capable of being modified, such as by well known grinding techniques, for the purpose of having the lens properly fit within the eyeglass frame. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the peripheral edge of WO 92/01417 capable of being modified to fit within an eyeglass frame it is well known in the art of eyeglass lenses for such lenses to be made from glass or plastic having peripheral edges that are capable of being modified, such as by well known grinding techniques, for the purpose of having the lens properly fit within the eyeglass frame. WO 92/01417 further discloses the correcting area correcting for conventional refractive error (page 33, lines 15-35 re provide "refractive correction" and providing "the spectacle lens prescriptions" which will inherently correct for myopia, hyperopia etc depending upon the user's needs); the vision correcting area correcting for an aberration of the lens or ocular system (page 10, lines 20-30). The lens of WO 92/01417 will inherently correct to better than 20/20 vision since it is being disclosed as correcting for higher order aberrations (page 10, lines 20-30, page 24, line 30 to page 25, line 30).

Claims 9 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Profile in view of Perrott et al publication number 2002/0149739.



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Profile discloses as is set forth above but does not specifically disclose the lens having a chromic characteristic. Perrott et al teaches that in eyeglass lenses it is desirable to further include "standard additional coatings to the front or back surface including electrochromic coatings" (paragraph 217) and/or to impart the eyeglass lens with photochromic or thermochromic properties (paragraphs 216 and 221) for the purpose of providing the desired optical properties to the lens. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the eyeglass lens of Profile as further including a chromic characteristic since Perrott et al teaches that in eyeglass lenses it is desirable to further include electrochromic, photochromic or thermochromic properties for the purpose of providing the desired optical properties to the lens.

#### ***Prior Art Citations***

Frey et al patent number 6,271,915 (see column 1, line 14, column 18, line 32, column 19, lines 9-22), Horwitz patent number 5,963,300 (see abstract, column 12, line 7), and PCT WO 99/27334 (see page 8 and Figure 7) are being cited herein to show spectacle lenses that would have either read on or made obvious a number of the above rejections, however, such rejections would have been repetitive.

#### ***Response to Arguments***

Applicant's arguments filed October 14, 2004 have been considered but, with respect to the rejected claims set forth above, they are not persuasive.

With respect to the "Profile" reference, applicant argues that the lens shown on the cover has an edge which could not be modified. Applicant further argues that the

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"hybrid" lens of "Profile" is a doublet and that there is no teaching or disclosure to modify the edge of the doublet lens. However, Figure 2 of "Profile" which is referred to on page 8, column 2, shows an electro-active lens in which the liquid crystal does not extend to the periphery of the lens and page 8 of "Profile" states that the hybrid lens can be made out of glass. Clearly the periphery of the Figure 2 lens could be modified to fit within an eyeglass lens. Furthermore, as stated in the rejection above, it is well known in the art of eyeglass lenses for such lenses to have modifiable edges, particularly glass lenses, in order to fit within an eyeglass lens and therefore it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify the edge of an eyeglass lens, be it electro-active or otherwise, to fit within an eyeglass frame.

With reference to the Horwitz reference, applicant argues that Horwitz does not disclose or teach of lenses to correct for non-conventional refractive error, particularly those that can be edged to fit within a spectacle frame. However, Horwitz discloses using wavefront analysis to determine higher order refractive error and using this information to produce spectacle lenses for a user. Clearly the spectacle lenses so produced will be correcting for such higher order aberrations, otherwise it would be meaningless to be testing for them. Furthermore, applicant is claiming a portion of the prescription determined by wavefront analysis but the invention does not require that the wavefront analysis is being determined by use of the spectacle lenses. Rather, from what is disclosed and claimed, the wavefront analysis is being used to determine the claimed refractive error and the determined refractive error is being corrected by use of the spectacles and this is exactly what Horwitz is disclosing as well.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

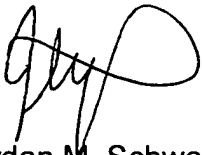
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (571) 272-2337. The examiner can normally be reached on Monday to Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached at (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J. Schwartz', with a large, stylized loop at the end.

Jordan M. Schwartz  
Primary Examiner  
Art Unit 2873  
December 30, 2004